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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,210	06/24/2003	David B. Griep	066042-9326-00	2237

60840 7590 01/29/2007  
MICHAEL, BEST & FREIDRICH LLP  
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SUITE 3300  
MILWAUKEE, WI 53202

EXAMINER
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PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/602,210

Applicant(s)

GRIEP ET AL.

Examiner

Kenneth E. Peterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-22, 25-33, 36, 37, 39-41, 44-58 and 60-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-22, 25-33, 36, 37, 39-41, 44-58 and 60-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 20-22,26-28,30-33,39-40,53-56,58,60-63 and 65-67 are rejected under 35 U.S.C. 103(a).

It is old and well known for reciprocating saws to have all of the recited limitations except the elastic force transmitter. An example of this is the patent to Butz '685, and there are numerous other reciprocating saws that could be used in lieu of Butz for the purpose of this rejection.

Butz does not have an elastic force transmitter, but such is well known in the art of reciprocating saws, as shown by Palm '023 in figure 7. Palm shows an externally toothed inner hub (710) and an internally toothed outer gear (716) having a plurality of elastic rubber elements positioned between the interacting teeth. Examiner notes that Palm's gear teeth and hub teeth do not radially overlap, but Applicant has not claimed this in these claims.

It would have been obvious to one of ordinary skill in the art to have modified Butz by providing his driven gear (40) with an elastically connected internal hub, as taught by Palm, in order to extend the life of the tool (Palm's lines 41-47, column 6). After this modification, Butz's elements 36,24 and 29 would be as one with the inner hub, and thus the inner hub would have an eccentric output member (29).

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The following is seemingly unnecessary, but if there is any doubt about the obviousness of placing the elastic force transmitter between Butz's driven gear (40) and driven shaft (36), then attention is drawn to figure 2 of the patent to Knight '813, who shows selective force transmittal between the gear (116) and the output member (125).

To make clear the details and motivations for this combination, Examiner will analyze Butz's and Palm's drive chain via an item by item comparison.

Butz's drive includes;	Palm's drive includes;
Motor – 80	Motor – 16
Motor shaft – 42	Motor shaft – 18
Pinion – 41	Pinion – unnumbered, at end of shaft 18
Driven gear – 40	Driven gear – 716
	Hub with elastic drive transmitter – 710,722
Driven shaft – 36	Driven shaft – 226
Driven eccentric – 24,29	Driven eccentric – 18
Driven arm – 23	Driven arm – 30
Output member – 12	Output member – 40
Blade – 10	Blade – 42

Obviously, anyone of ordinary skill would realize the hub with the elastic drive transmitter would be a valuable addition to any reciprocating saw, in order to extend the

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life of the saw (Palm's lines 41-47, column 6). The question of where on Butz to add this feature also would have been obvious to one of ordinary skill. As seen in the table above, Palm teaches placing the hub and elastic drive transmitter between the driven gear and the driven shaft. Accordingly, one modifying Butz would also place the hub and elastic drive transmitter between the driven gear (40) and the driven shaft (36). Once this modification was made, Butz's new hub would be integral with the driven shaft (36), which in turn is integral with the driven eccentric (24,29), so the new hub would effectively have an offset drive member (29), just as set forth in Applicant's claims.

To be perfectly clear about the modification, Butz would no longer have a set screw (39) attaching the driven gear (40) to the driven shaft (36). Instead, Butz's driven gear (40) would have therein the hub (710) and elastic force transmitter (722), just like Palm's driven gear (716) has therein the hub and elastic force transmitter. Butz's new hub would be integral with the driven shaft (36), just like Palm's hub (710) is integral with his driven shaft (226).

3. Claims 20-22,25-33,36,37,39-41,44-58 and 60-67 are rejected under 35 U.S.C. 103(a).

The below specifically addresses claims 25,29,36,37,41,44-52,57 and 64, but is pertinent to all the claims that address the elastic force transmitter.

Butz, as modified above, has an elastic force transmitter that is not a body with a plurality of elastic protrusions thereon. Also, Butz's new gear and hub protrusions do

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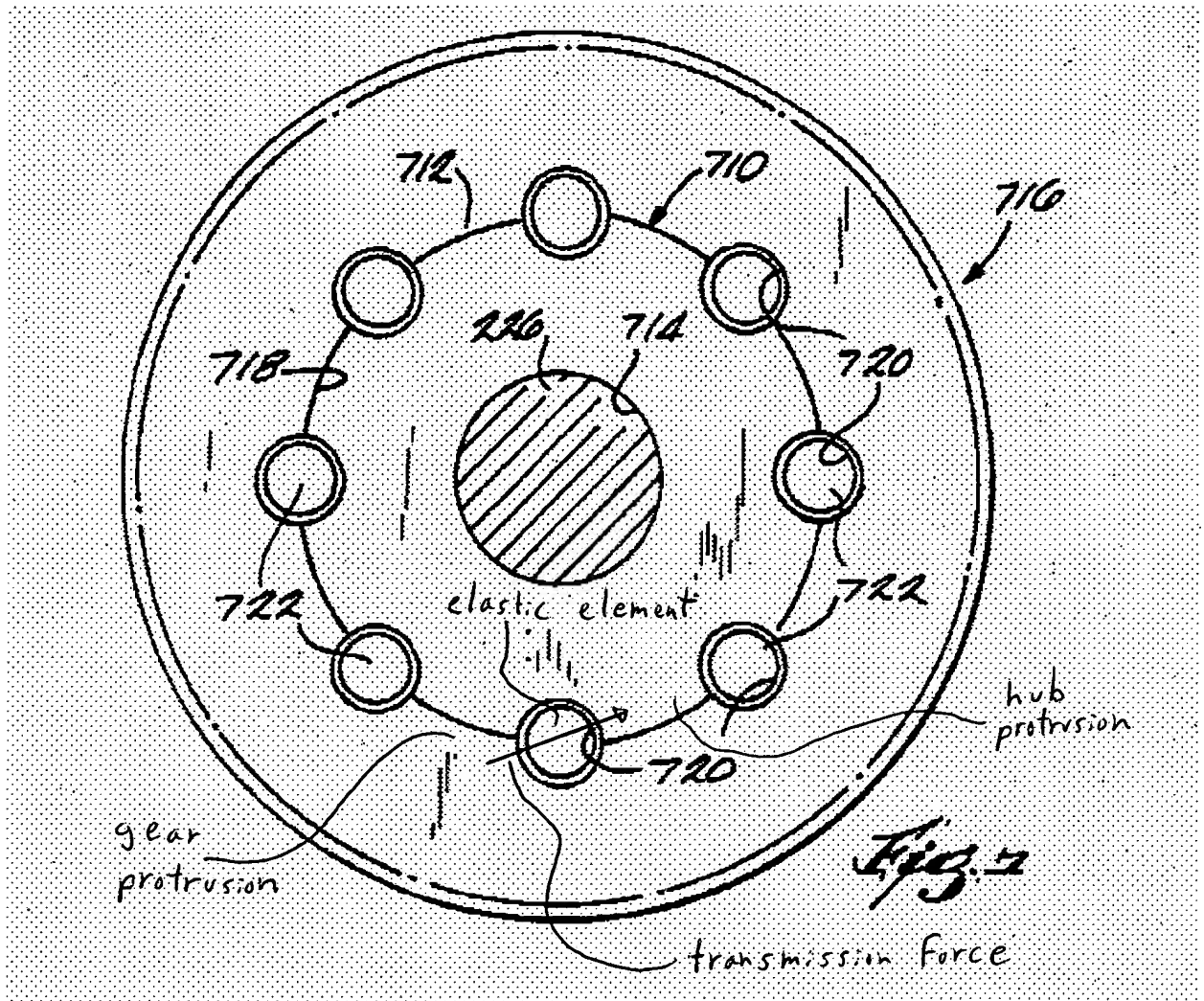
not radially overlap. However, such is well known as taught by King et al.'368 and/or Iwabuchi et al.'981. These two patents show the elastic force transmitter employed by the Applicant. Since both King (lines 34,35, column 1) and Iwabuchi (lines 21,22, column 1) are for the same purpose as Palm (preventing high impact load), they are considered to be art recognized equivalents known for the same purpose. It would have been obvious to one of ordinary skill in the art to have modified Butz by employing the elastic force transmitters of King or Iwabuchi instead of the elastic force transmitter of Palm, since they are art recognized equivalents know for the same purpose.

4. Applicant's arguments have been fully considered but they are not persuasive.

Applicant has submitted 30 pages of arguments, arguing each claim grouping in a largely repetitious manner. Examiner will address the common arguments only once.

Applicant conducts a piecemeal analysis of Butz and Palm and notes their singular deficiencies, but this is meaningless, since Examiner has not applied either reference under 35 USC 102.

Applicant argues that Palm does not teach "*an elastic member positioned between the gear protrusion and the hub protrusion*". This is incorrect as seen in Palm's figure 7. The elastic element (722) is between the gear protrusion and the hub protrusion along a line of force transmission, as seen herebelow.



Applicant argues that King's and Iwabuchi's flex couplings are for different machines. However, as seen in their titles and in their drawings, King and Iwabuchi are drawn to generic drive transmission dampers for use on myriad different devices. The fact that they give a few examples (fans, car windows) does not take away their general teachings of protecting the drive motor and gears from excessive force (see King, lines 34,35, column 1, and Iwabuchi lines 21,22, column 1). While neither King Nor Iwabuchi specifically mentions a power tool, they are both very pertinent to the problem that Palm

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is trying to solve, and thus they are usable references under the *Oetiker* test (MPEP 2141.01a).

Applicant argues that there is no motivation to make the modifications. However, the secondary references to Palm (lines 41-47, column 6), King (lines 34,35, column 1) and Iwabuchi (lines 21,22, column 1) all express the admirable motivation of protecting the motor or drive train from excessive force.

5. This case is an RCE. All claims are drawn to the same invention claimed in the previous prosecution and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the previous prosecution. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.



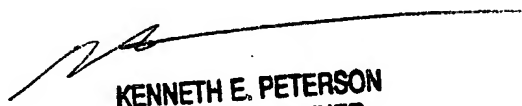
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth E. Peterson whose telephone number is 571-272-4512. The examiner can normally be reached on Mon-Thur, 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kp



KENNETH E. PETERSON  
PRIMARY EXAMINER